

## ADDITIONS TO THE ORCHID-FLORA OF SELEBES

by

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In 1921 the then plantcollector of the Buitenzorg Herbarium, Mr H.A.B. BÜNNEMEIJER, was charged with a collecting journey to the in botanical respect nearly unexplored Goenoeng Bantaeng (Peak of Bonthain), reaching an elevation of more than 3000 m and situated in the South of the south-western peninsula of Selebes.

The very interesting collection then brought together includes relatively few Orchidaceae, viz. 37 species. Amongst these are 16 endemic species of which 11 had as yet not been described. Of these new species are especially interesting *Tubilabium bilobuliferum* J.J.S., being the second species of the genus of which the first had been found in Boeroe; *Coelogyne bicamerata* J.J.S. which shows only some likeness with a new species from Seran; *Pedilochilus bantaengensis* J.J.S., the first species of this affinity recorded out of New Guinea; and *Saccolabiopsis selebica* J.J.S., which genus numbered as yet one species only, viz. *S. Bakhuizenii* J.J.S. known as indigenous in Java and probably South-Sumatra.

Apart from 14 species with a larger area of distribution there remain a small number which occur either on Java and Selebes only or of which the line of distribution reaches farther east- or westward. These species are *Habenaria Medusa* KRZL., Java, South Selebes.

*Calanthe emarginata* LNDL., Java, South Selebes.

*Luisia javanica* J.J.S., Java, South Selebes.

*Gastrochilus sororius* SCHLTR., Java, South Selebes.

*Polystachya flavescens* J.J.S. Sumatra, Java, South Selebes.

*Caladenia carnea* R. BR. Java, South Selebes, Timor, Australia (if this plant should really be classed with the Australian species).

*Microtis javanica* RCHB. F. East Java, South Selebes, Lombok (this species has probably a larger area of distribution).

R. SCHLECHTER has in his enumeration of the Selebes Orchidaceae (in FEDDE Repert. XXI [1925]; 113) taken a number of species from my list of the Orchids cultivated in the Buitenzorg Botanic Gardens, which, however, are in want of closer information. For completeness' sake I add these data in this place.

*Eria littoralis* T. et B. in Nat. Tijdschr. Ned. Ind. XXIV (1862), 312; etc. (= *E. bractescens* LNDL.?).

Central Selebes: (R. SCHLECHTER, liv. pl. cult. in Hort. Bog. sub n. 3).

*Eria quinquangularis* J. J. S. Orch. Amb. (1905), 76.

West Selebes: Kampong Tapalang (Exp. L. VAN VUUREN, liv. pl. cult. in Hort. Bog. sub. n. 404).

*Liparis viridiflora* LNDL. Gen. et sp. Orch. (1830), 31; etc.

South Selebes: Kampong Masawa, Polewali (Exp. L. VAN VUUREN 1912, NOERKAS, liv. pl. cult. in Hort. Bog. sub. n. 425).

*Appendicula cristata* BL. Bijdr. (1825), 24; Tab. f. 40; etc.

North Selebes: Manado (S. H. KOORDERS, liv. pl. cult. in Hort. Bog. sub n. 619c).

*Dendrobium nitidicolle* J. J. S. in Bull. Jard. Bot. Buit. 2e sér. III (1912), 7.

South Selebes: Roembia, Oeloe-la-Eha, 135-140 m (J. ELBERT n. 3115, September 1909; also liv. pl. cult. in Hort. Bog. sub n. 16).

*Dendrobium flabellum* RCHB. F. Xen. Orch. II (1865), 75, t. 118; etc.

West Selebes: Kampong Tapalang (Exp. L. VAN VUUREN, liv. pl. cult. in Hort. Bog. sub n. 400). Without locality (J. ELBERT 1909, liv. pl. cult. in Hort. Bog. sub n. 6).

*Dendrobium rhipidolobum* SCHLTR. in SCHUM. et LAUT. Nachtr. Fl. d. Schutzgeb. Südsee (1905), 151; etc.

North Selebes: Minahassa (S. H. KOORDERS 1895, liv. pl. cult. in Hort. Bog. sub n. 241c).

*Dendrobium crumenatum* Sw. in Act. Holm. (188), 246; etc.

North Selebes: Boeol (W. J. D. VAN ANDEL).

South Selebes: Tasese (Exp. L. VAN VUUREN, liv. pl. cult. in Hort. Bog. sub n. 9). Tjampaga (Exp. L. VAN VUUREN 1913, RACHMAT, liv. pl. cult. in Hort. Bog. sub n. 56; nom. ind. *boenga sanggara*). Paka-paka (?) (Exp. L. VAN VUUREN, liv. pl. cult. in Hort. Bog. sub n. 181).

*Dendrobium faciferum* J. J. S. in Bull. Dép. Agric. Ind. Néerl. XV (1908), 10.

South-east Selebes: Tandjong Betong (J. ELBERT).

The species has also been collected in Wetar and Timor.

*Dendrobium tetradon* RCHB. F. var. *Vanvuureonii* J. J. S. in Bull. Jard. Bot. Buit. 3e sér. I (1919), 113.

West Selebes: Mamoedjoe (Exp. L. VAN VUUREN 1913, RACHMAT, liv. pl. cult. in Hort. Bog. sub. n. 8).

*Dendrobium secundum* LNDL. in WALL. Cat. (1832), n. 1996; etc.

West Selebes: Mamoedjoe (Exp. L. VAN VUUREN 1912, NOERKAS, liv. pl. cult. in Hort. Bog. sub n. 237).

*Dendrobium lancifolium* A. RICH. Sert. Astrol. (1834), 20, t. 8; etc.

Central Selebes: Kantewoe (W. KAUDERN n. 328, September 1918).

South Selebes: Enrekang (Exp. L. VAN VUUREN 1912, NOERKAS liv. pl. cult. in Hort. Bog. sub n. 285). Kampong Baoeroeng (Exp. L. VAN VUUREN 1912, NOERKAS liv. pl. cult. in Hort. Bog. sub n. 304). G. Tabone (Exp. L. VAN VUUREN, liv. pl. cult. in Hort. Bog. sub n. 92). G. Watangoli (Exp. L. VAN VUUREN 1913, RACHMAT, liv. pl. cult. in Hort. Bog. sub n. 200). Goenoeng Batoe (Exp. L. VAN VUUREN, RACHMAT n. 419, August 1913). Balapio (Exp. L. VAN VUUREN, RACHMAT n. 520, August 1913). W. Tambajoli (Exp. L. VAN VUUREN, RACHMAT n. 696, November 1913). Goenoeng Riah (Exp. L. VAN VUUREN, RACHMAT n. 876, November 1913).

*Bulbophyllum odoratum* LNDL. var. *grandiflorum* J. J. S. ex Bull. Jard. Bot. Buit. 3e sér. I (1919), 176.

West Selebes: Masawa (Exp. L. VAN VUUREN, liv. pl. cult. in Hort. Bog. sub n. 436).

This should be compared with *B. tylophorum* SCHLTR.

*Vandopsis lissochiloides* PFITZ. in ENGL. et PRANTL. Nat. Pflanzenfam. II, 6 (1889), 210; etc.

Central Selebes: Kantewoe (W. KAUDERN n. 326, September 1918).

West Selebes: Poeloe Mamoedjoe (J. OOSTENBROEK) Mamasa (Exp. L. VAN VUUREN, liv. pl. cult. in Hort. Bog. sub n. 125).

East Selebes: Maloeboe (Exp. L. VAN VUUREN, RACHMAT n. 515, August 1913).

*Sarcanthus subulatus* RCHB. F. in Bonpl. V. (1857), 41; etc.

South Selebes: Tasese (Exp. L. VAN VUUREN 1913, RACHMAT, liv. pl. cult. in Hort. Bog. sub n. 10).

The following specimens have not yet been recorded in SCHLECHTER's list nor in my publications: *Die Orchideen der zweiten Frankfurter Sunda-Expedition 1909—1910* (Meded.'s Rijks Herb. Leiden, no. 53 [1925]), and: *The Orchidaceae of Dr. W. Kaudern's Expedition to Selebes 1917—1920* (Svensk Botanisk Tidskrift XX [1926]).

*Dendrobium utile* J. J. S. in Ic. Bog. II (1903), 77, t. LXIV A.

Selebes: Goenoeng Mendoke, above 1500 m (J. ELBERT; nom. ind. *alemi*). — New for Selebes.

*Dendrobium ternatense* J. J. S. in Bull. Dép. Agr. Ind. Néerl. XXII (1909), 26; etc.

Selebes: Goenoeng Bibisang (Exp. L. VAN VUUREN, RACHMAT n. 579, August 1913). Goenoeng Malabo (Exp. L. VAN VUUREN 1913, RACHMAT, liv. pl. cult. in Hort. Bog. sub n. 137).

PERISTYLUS BL.

**Peristylus candidus** J. J. S. in Fl. Buit. VI, Orch. (1905), 36; Atl. Fig. XVIII; etc.

Selebes: Goenoeng Galesong near Malino, 310 m, roadside between *Imperata* (H. A. B. BÜNNEMEIJER n. 10793, April 1921: „flowers white”).

HABENARIA WLLD.

**Habenaria Medusa** KRZL. in ENGL. Bot. Jahrb. XVI (1892), 203; etc.

Selebes: Malino, 280 m, roadside and secondary forest (H. A. B. BÜNNEMEIJER n. 10708 and n. 10883, 30 March and 8 April 1921). Bonto Parang, 50 m, roadside (H. A. B. BÜNNEMEIJER n. 10684, 29 March 1921).

**Habenaria Rumphii** LNDL. Gen. et sp. Orch. (1835), 320; etc.

Selebes: Lombasang, 950 m, roadside and between *Imperata* (H. A. B. BÜNNEMEIJER n. 10938, 13 April 1921; n. 10984a, 15 April 1921; n. 11038, 18 April 1921). Tamboengkasi near Lombasang 1330 m, roadside (H. A. B. BÜNNEMEIJER n. 11203, 27 April 1921). Kampong Biroro near Lombasang, 850 m, roadside (H. A. B. BÜNNEMEIJER n. 11635, 20 May 1921). Raoelo, 900 m, between *Imperata* (H. A. B. BÜNNEMEIJER n. 12572, 30 June 1921).

HERMINIUM L.

**Herminium angustifolium** BTH. ex HOOK. F. Fl. Br. Ind. VI (1894), 129; etc.

Selebes: Goenoeng Bantaeng (Bonthain), in forest (H. A. B. BÜNNEMEIJER n. 11984 p.p., 9 June 1921, 2200 m; n. 12280 p.p., 18 June 1921, 1800 m; n. 12360 a, 20 June 1921, 1800 m; n. 12399, 21 June 1921, 1850 m).

The numbers 11984, 12280 and 12360a were mixed with *Microtis javanica* RCHB. F.

MICROTIS R. BR.

**Microtis javanica** RCHB. F. Bonplandia V (1857), 36; etc.

Selebes: Goenoeng Bantaeng, forest (H. A. B. BÜNNEMEIJER n. 12360 p.p., 20 June 1921, 1800 m; n. 11984a, 9 June 1921, 2200 m). Same locality, Boeloe Ballea, 1800 m (H. A. B. BÜNNEMEIJER n. 12280a, 18 June 1921).

CALADENIA R. BR.

**Caladenia carnea** R. BR. Prodr. (1810), 324; etc.

Selebes: Goenoeng Bantaeng, forest, 1800 m (H. A. B. BÜNNEMEIJER n. 12346, 20 June 1921; „flowers light purple”).

## EPIPOGUM GMEL.

**Epipogum roseum** LNDL. in Journ. Linn. Soc. I (1857), 177; etc.

Selebes: Lombasang, 950 m., forest (H.A.B. BÜNNEMEIJER n.11463, 10 May 1921).

## HETAERIA BL.

**Hetaeria bantaengensis** J. J. S. n. sp.

*Caulis* adscendens, basi radicans, pars adest 14.5 cm longa, superne c. 6folia. *Folia* oblique oblongo-elliptica, acuta, apiculata, basi in petiolum acuminata, curvinervia, oblique reticulato-venosa, c. 7.5-9.25 cm longa, 2.75-3.3 cm lata; petiolus canaliculatus, cum vagina tubulosa c. 2-3.75 cm longus. *Inflorescentia* fructifera erecta, pedunculo glabro, superne puberulo, c. 11 cm longo, vaginulis c. 3 tubulosis donato, rachide puberula, c. 11 cm longa. *Bracteae* adpressae, late ovatae, acuminatae, acutae, concavae, parcissime breviterque ciliatae, ceterum glabrae, 1nerviae, superiores c. 0.65 cm longae, 0.5 cm latae. *Flores* glabri. *Sepalum dorsale* ovatum, leviter obtuse acuminatum, concavum, 1nervium, c. 0.425 cm longum, 0.3 cm latum. *Sepala lateralialia* oblique ovata, brevissime obtuse acuminata, concava, 1nervia, c. 0.46 cm longa, 0.3 cm lata. *Petala* sepalo dorsali agglutinata, late oblique semielliptica, apice breviter obtuse contracta, basi leviter contracta, valde inaequilatera, concava, 1nervia, c. 0.44 cm, longa 0.25 cm, basi 0.07 cm lata. *Labellum* basi rotundato-saccata marginibus gynostemio adpressum, 3lobum, subtus longitudinaliter sulcatum, 3nervium, ante lobos laterales contractum et marginibus incurvis supra contiguis unguiculatum, apice marginibus abrupte recurvis in laminam satis conspicuam usque ad  $\frac{1}{3}$  supra basin bipartitam ambitu late ovatam dilatatum, totum explanatum c. 0.625 cm longum, sacco conspicuo, rotundato, basi utrinque lobulo triangulo abrupte incurvo gynostemio adpresso donato, explanato c. 0.43 cm lato, usque ad apicem loborum lateralium 0.25 cm longo, intus costa conspicua longitudinali duplicata in  $\frac{1}{3}$  supra basin altissima antice mox decrescente evanescenteque et utrinque glandula magna subovali obtusa donato, extus ad basin loborum lateralium costa oblique longitudinali irregulari incrassata instructo, lobis lateralibus ad basin unguis, erectis, gynostemio adpressis, obtusangule rotundato-triangulis, ungue ab apice loborum lateralium 0.25 cm longo, lamina 0.225 cm longa, fere 0.2 cm lata, laciniis porrectis, subparallelis, oblique semiovato-triangulis, obtusis obtusiusculisve, 0.15 cm longis, basi fere 0.1 cm latis. *Gynostemium* brevissimum, crassum, subtus lamellis 2 majusculis parallelis carnosulis subbilobulis in saccum quadrantibus instructum, clinandrio alte excavato, pariete tenui. *Anthera* ut videtur brevissima. *Stigmata* 2, transversa. *Ovarium* glabrum.

Selebes: Goenoeng Bantaeng, 1800 m, forest (H.A.B. BÜNNEMEIJER n. 12367, 20 June 1921).

The species seems to be allied to *H. abbreviata* LNDL.

Description from a single dried specimen in fruit.

## TUBILABIUM J. J. S.

**Tubilabium bilobuliferum** J. J. S. n. sp.

*Caulis* e basi decumbente radicante adscendens, glaber, totus c. 5-9 cm longus, parte erecta 2.5-4 cm longa, 4-7folia. *Folia* brevina, ovato-triangula, obtusa vel vix acuminata, minute apiculata, basi truncata vel medio plus minusve cuneato-contracta, angulis rotundata, plana, plerumque 5nervia, costa media dorso vix prominente (in spiritu vini), nervis ceteris tenuibus curvatis, c. 1.2-2.35 cm longa, 1-1.7 cm lata; petiolus brevis, canaliculatus, cum vagina tubulosa c. 0.8-1 cm longus. *Inflorescentia* dense 3-8flora, pedunculo tereti, inferne glabro, superne sparse pubescenti, c. 3.5-5.75 cm longo, vaginulis 1-2 foliaceis donato, rachide brevi, parce pubescenti, c. 0.35-1.3 cm longa. *Bracteae* adpressae, oblongo-ovatae, acute acuminatae, ciliolatae, concavae, 1nerviae, infima ad c. 1 cm longa, summa 0.75 cm longa, 0.3 cm lata. *Flos* ultimus c. 0.725 cm longus, sepalis conniventibus, apice recurvis, basi dorso reverse longiuscule pilosis. *Sepalum dorsale*  $\frac{2}{5}$  partibus superioribus subrectangule recurvum, apice reverso vix concavo excepto valde concavum, e basi subovali oblongo-contractum, obtusum, margine apicali intus minute puberulum, 1nervium, c. 0.7 cm longum, 0.3 cm latum. *Sepala lateralina* basi obliqua concava saccum labelli amplectentia, mentum breve crasse conicum obtusum reversum c. 0.1 cm longum formantia, oblique oblonga, obtusa, 1nervia, tota c. 0.8 cm, margine postico bene 0.6 cm longa, 0.3 cm lata. *Petala* inferne sepalo intermedio agglutinata, apice libero recurva, oblique subquadrangulo-ovalia, abrupte oblique oblongo-contracta, obtusa, basi anguste inserta, inaequilatera, valde concava, apice contracto dimidio extrorso intus convexa denseque papillosa, tota c. 0.67 cm longa, bene 0.3 cm lata, apice fere 0.2 cm longo, fere 0.1 cm lato. *Labellum* angustum, lineare, porrectum, medio fere obtusangule recurvum, subtus sulcatum, inexplatum c. 0.7 cm longum, basi oblongo-saccata marginibus gynostemio adpressum, ante gynostemium marginibus incurvis contiguis laminam lineari-oblongam supra in utroque latere canaliculae longitudinalis convexam infra apicem utrinque supra rotundato-convexo-elevatam apice in lobulum minutum abrupte incurvum obtusum productam supra basin utrinque lobulo parvo deflexo semiorbiculari vel retuso instructam omnino dense papilloso-puberulam c. 0.44 cm longam 0.16 cm latam formans, sacco brevi, obtuso, reverso, intus utrinque glandula obtusa in ambobus ramulis nervi sita praedito, extus utrinque minute papilloso. *Gynostemium* breve, e basi contracta valde cuneato-dilatatum, subtus lamellis 2 longitudinalibus parallelis crassis in saccum quadrantibus instructum, c. 0.3 cm longum, 0.24 cm latum, clinandrio concavo, margine utrinque dentifero, pariete postico cum parte inferiore gynostemii angulum obtusum faciente. *Anthera* conspicua, basi lata firmiter inserta basi haud in clinandrium immersa, e basi transverse subovali longissime subulatrostrata, apice acuto incurvula, c. 0.24 cm longa, 0.14 cm lata, connectivo e basi subovata convexa sensim costato-angustato. *Glandula polliniorum*

crassa, oblonga. *Rostellum* porrectum, oblongum, supra canaliculatum, laciniis subulatis, incurvulis. *Stigmata* 2, conspiciua, crassa, antica, obtusa, falcato-incurva. *Ovarium* sessile, apice leviter inclinatum, tortum, 6sulcatum, glabrum, c. 0.8 cm longum.

Selebes: Goenoeng Bantaeng, Boeloe Ballea, 1800 m, forest (H. A. B. BÜNNEMEIJER n. 12279, 18 June 1921; „flowers white, leaves purplish beneath, inside with light green nervès”).

Much approaching *T. aureum* J. J. S. from Boeroe, from which it differs in the relatively much broader leaves, longer inflorescence, larger flowers, the sepals only pubescent at the base, different calli on the base of the lip and the apical portion of the lip provided with two rounded lobules at the base. More materials, especially of the Boeroe plant, are very desirable.

Description from herbarium and materials preserved in alcohol.

#### GOODYERA R. BR.

**Goodyera bifida** BL. Fl. Jav. n. ser. I (1858), 33, t.9c, fig. 1; etc.

Selebes: Goenoeng Bantaeng, forest (H. A. B. BÜNNEMEIJER n. 11827, 6 June 1921, 2200 m; n. 12017, 10 June 1921, 2060 m; n. 12035, 11 June 1921, 2000 m; n. 12332, 19 June 1921, 1700 m).

#### COELOGYNE LNDL.

**Coelogyne celebensis** J. J. S. in Bull. Jard. Bot. Buit. 2e sér. XXV (1917), 3.

—*C. platyphylla* SCHLTR. in FEDDE Rep. XXI (1925), 129.

Selebes: Goenoeng Galesong near Melino 310 m, roadside (H. A. B. BÜNNEMEIJER n. 10832, 5 April 1921) Lombasang, 950 m, forest (H. A. B. BÜNNEMEIJER n. 11115, 23 April 1921; n. 11325, 3 May 1921; n. 11464, 10 May 1921).

I have little doubt that *C. platyphylla* SCHLTR. belongs here, although I have seen no material. As I have stated in cultivated specimens *C. celebensis* is a somewhat variable plant especially as to the shape of the midlobe of the lip.

According to the description I think *C. caloglossa* SCHLTR. (in FEDDE Rep. X [1911], 16) belongs to the same affinity and not with *C. Beccarii* RCHB. f. from New Guinea.

**Coelogyne bicamerata** J. J. S. n. sp.

*Pseudobulbi* approximati, oblongo-ovoides ad elongati, 2folii, c. 3-7,5 cm. longi, initio vaginis alternatim bifariis imbricatis acutis obtusisve sicco prominule nervosis superioribus accrescentibus ad c. 6.5 cm longis inclusi. *Folia* erecta, lanceolata, acuta vel leviter acute acuminata, basi acuta in petiolum contracta, nervis 5 majoribus dorso prominentibus, coriacea, tota c. 9.5-31 cm longa, 1.85-4 cm. lata, petiolo 1-5 cm longo. *Inflorescentia* foliis novellis synantha, pluriflora, pedunculo nudo, compresso, sectione elliptico c. 4-10 cm longo, sub fructificatione valde elongato, c. 16.5-24

cm longo, rachide recta vel plus minusve flexuosa, obtusangula, c. 2.4-8.5 cm longa, internodiis c. 0.45-0.9 cm longis. *Bractee* caducae, cymbiformes acutangule concavae, ovatae, acutae, apiculatae, dense nervosae, c. 2.1 cm longae, 1.3 cm latae. *Flores* alternatim bifarii secundi, simultanei, inter minores, leviter a latere compressi, c. 2 cm longi, sepalis petalisque conniventibus subparallelis. *Sepalum dorsale* valde angulato-concavum, oblongo-ovatum, apicem versus angustatum vel acuminatum, obtusum, acute apiculatum, dorso praesertim basin versus alte carinatum, carina in ovarium decurrente, 5-(sub-7-) nervium, c. 1.75-1.95 cm longum, 0.8-0.9 cm latum. *Sepala lateral*ia basi valde concava saccum labelli amplexentia, mentum distinctum cum ovario angulum acutum faciens rotundatum formantia, angulato-concava, oblique ovata ad lanceolato-ovata, acuta vel acute acuminata, apiculata, dorso valde carinata carina in ovarium decurrente, 5-(7-)nervia, c. 18-21.5 cm longa, 0.95-0.82 cm lata. *Petala* oblique elliptica ad elliptico-lanceolata, vix vel distincte acuminata, subacuta acutave, plana, 3-(sub-5-)nervia, costa media dorso sulcata, c. 1.5-1.7 cm longa, 0.8-0.6 cm lata. *Labellum* angustum, valde concavum, marginibus longitudine c. 0.3 cm gynostemio adnatum ceterum adpressum, 3lobum, basi saccatum, subtus longitudinaliter sulcatum, apice recurvulo subsigmoideum, costis 3 longitudinalibus parallelis simplicibus undulatis superne inter lobos laterales valde undulatis incrassatisque apice leviter undulatis val subrectis, in basi vel fere in medio lobi intermedii terminantibus, interdum utrinque costula humili addita, sacco conspicuo, sulco alto bilobo cum lobis sulco longitudinali minore retusis, intus basi costae mediae elevatae bicamerato, c. 0.375-0.4 cm lato, inexplanatum usque ad apicem ovarii c. 1.15-1.35 cm longum, explanatum totum 1.5-1.65 cm, absque sacco bene 1.2-1.5 cm longum; lobi laterales erecti, gynostemium aequantes, antice haud vel vix producti, rotundati, basi lati, mesochylium obovatum spurie obcordatum c. 0.8-0.97 cm longum 0.8 latum formantes; lobus intermedius recurvulus, gynostemium superans, oblongo-quinquangularis, acutus, concavus, utrinque repandulus, c. 0.4-0.575 cm longus, 0.27-0.275 cm latus. *Gynostemium* vix curvulum, anguste alatum, dorso convexum, subtus concavum et in fere 0.2 cm supra basin transverse incrassatum, c. 0.95-1 cm longum, ala apicali triloba, lobo intermedio subsemiorbiculari vix lobulato retusove, auriculis a lobo intermedio sinibus subrectangulis sejunctis, subaequilongis, latis, obtusis, 2-subtridentatis, clinandrio alte excavato. *Anthera* alte cucullata, supra visa sexangulata, apice medio producto valde recurvo supra convexo subtus canaliculato, obtusa, c. 0.2 cm longa, bilocularis, thecis incomplete bilocellatis. *Pollinia* 4, oblique ovalia, extus convexa, intus excavata, cum glandula brevi antice bilobula fere 0.15 cm longa. *Rostellum* satis parvum, erectum, triangulum, acutum. *Stigma* longitudinale, ovale, margine valde elevatum. *Ovarium* obconicum, 6costatum, c. 0.7 cm longum; pedicellus 0.2 cm longus.

*Selebes*: Goenoeng Bantaeng, forest (H. A. B. BÜNNEMEIJER n.11622, 18 May 1921, 1100 m, „flowers light yellow almost white”; n.12085, 11



June 1921, 2000 m, „flowers white”; n.12119, 12 June 1921, 1500 m; n. 12132, 13 June 1921, 1600 m, „flowers white to light green”; n.12366, 20 June 1921, 1800 m, „flowers white”).

A very interesting species. In many respects it resembles *C. calcarata* J.J.S. from Seran, *i.a.* in the two-leaved pseudobulbs, the few flowered synanthous inflorescence, caducous bracts, rather small white flowers with a narrow three-lobed lip conspicuously saccate at the base, a narrowly winged column. It differs, however, in the lip being adnate to the column at the base, the bicamerate saccate portion of it, the different keels and the much longer column.

Description from herbarium.

#### PHAJUS LOUR.

**Phajus Tankervilleae** BL. Mus. Bot. Lugd. Bat. II (1858), 177; etc.

Selebes: Goenoeng Bantaeng, 1200 m, forest (H. A. B. BÜNNEMEIJER n.11764, 28 May 1921).

#### CALANTHE R. BR.

**Calanthe emarginata** LNDL. Gen. et sp. Orch. (1833), 249; etc.

Selebes: Lombasang, 950 m, forest (H. A. B. BÜNNEMEIJER n.11466, 10 May 1921; „flowers violet, lip darker, yellow between the two auricles”).

**Calanthe veratrifolia** R. BR. in Bot. Reg. IX (1823), t. 270; etc.

Selebes: Lombasang, 950 m, forest (H. A. B. BÜNNEMEIJER n.11674, 23 May 1921: „flowers white, centre yellow”). Goenoeg Bantaeng, forest (H. A. B. BÜNNEMEIJER n.11571, 1400 m; n.11623, 18 May 1921, 1500 m; n.12118, June 1921, 1500 m; n.12368, 20 June 1921, 1800 m, „flowers white, centre yellow”).

#### SPATHOGLOTTIS BL.

**Spathoglottis plicata** BL. Bijdr. (1825), 401; Tab. 76; etc.

Selebes: Lombasang, 950 m, roadside (H. A. B. BÜNNEMEIJER n. 10962 14 April 1921, „flowers very light violet”; n. 10964, 14 April 1921, „flowers violet”; n. 11002, 16 April 1921, „flowers light violet”). Boeloe Tanah near Lombasang, 750 m, roadside (H. A. B. BÜNNEMEIJER n. 11531, 13 May 1921, „flowers violet”). Tanette, district Parigi, 500 m, roadside (H. A. B. BÜNNEMEIJER n. 12535, 28 June 1921, „flowers violet”).

#### MICROSTYLIS NUTT.

**Microstylis** (sect. *Hololobos*) **lombasangensis** J. J. S. n. sp. *Caulis* brevis, basi radicans, c. 6folius. *Folia* oblique subelliptica, acuta, basi acuta, nervis 5 majoribus subtilibus prominentibus curvatis pluribus tenuibus intermixtis.

rectangle reticulato-venosa, sicco membranacea, mediana maxima, ad c. 7.75 cm longa, 3.4 cm lata; petiolus canaliculatus, cum vagina tubulosa c. 3.5 cm longus. *Inflorescentia* laxa pluriflora, pedunculo anguste alato-angulato, c. 4 cm longo, rachide anguste alata, 4.3 cm longa. *Bractae* reflexae, oblongo-triangularae, vix ovatae, apicem versus sensim angustatae, acutae, 3nerviae, c. 0.57 cm longae, bene 0.2 cm latae. *Flores* c. 12, mediocres, c. 0.55 cm lati, 0.8 cm longi. *Sepalum dorsale* deorsum spectans, valde convexum, marginibus praesertim medio valde recurvis, oblongum, obtusum, 5nervium, fere 0.5 cm longum, fere 0.2 cm latum. *Sepala lateral*ia oblique erecta, divergentia, angulum acutum facientia, valde convexa, paululum supra medium concavo-excavata, oblique late subovalia, obtusa, 5nervia, c. 0.425 cm longa, 0.275 cm lata. *Petala* oblique late linearia, superne vix dilatata, vix falcutula, apice leviter retusa, valde convexa, 3nervia, c. 0.45 cm longa, bene 0.1 cm lata. *Labellum* hippocrepidiforme, apice incurvum, obsolete trilobum, inferne convexum, fovea longitudinali, lineari, basi paululo dilatata costis limitata, dorso convexa, explanatum totum ambitu subovatum, inferne utrinque (lobis lateralibus) superne sensim in lobum intermedium alte in lobulos parallelos oblique triangulos sinu angusto sejunctos obtusos c. 0.15 cm longos 0.14 cm latos bipartitum contractum, explanatum c. 0.5 cm, cum auriculis 0.75 cm longum, 0.575 cm latum, lobo intermedio 0.375 cm lato, auriculis remotis, oblique triangulis, anguste obtusis, margine interiore 0.27 cm longis, 0.2 cm latis. *Gynostemium* brevissimum, rectum, c. 0.15 cm longum, clinandrio concavo, auriculis conspicuis, porrectis, divergentibus, latis, angulato-subovalibus, obtusis, intus convexis. *Anthera* cucullata, late subovato-reniformis, apice medio paululo producta truncataque, connectivo leviter incrassato ovato-triangulo, plano, c. 0.075 cm lata. *Pollinia* 4, a dorso compressa, corpuscula 2 oblique pyriformia formantia, obtusa, basi acuta, bene 0.05 cm longa. *Rostellum* breve, truncatum, membranaceum, auriculis brevius. *Stigma* transversum. *Ovarium* pedicellatum obtusangule curvatum, 6costatum, costulis tenuibus intermixtis, c. 0.45 cm longum.

*Selebes*: Lombasang, 950 m, roadside, on a stone (H. A. B. BÜNNE-MEIJER n. 11358, 5 May 1921; „flowers yellow”).

Allied to *M. Wallichii* LNDL., *M. Pierrei* FINET, etc., but with a differently shaped lip.

Description from a small dried specimen the inflorescence of which was preserved in alcohol.

#### OBERONIA LNDL.

**Oberonia** (sect. *Apotemnophyllum*) **bantaengensis** J. J. S. n. sp.

*Caules* approximati, brevissimi, c. 3-7folii. *Folia* articulata, erecta ad erecto-patentia, lineari-ensiformia, apicem versus sensim angustata, acutissima, inferne supra fissa, basi rotundata, mediana maxima, infima brevissima, summa angustissima, ad c. 10-15 cm longa, sicco 0.5-0.9 cm lata; vaginae

tubulosae, lateraliter compressae, apice rotundato-excisae, c. 1 cm longae. *Inflorescentia* folia superantes, subdense multiflora, pedunculo c. 6-9.5 cm longo, vaginulis bracteiformibus inferne laxis superne densioribus adpressis obsesso, rachide septemalato-angulata, c. 6.75-15 cm longa, apice sterili. *Bracteae* adpressae, lineari- ad oblongo-triangularae, acutae, erosulae, concavae, ad c. 0.4 cm longae, fere 0.1 cm latae, superiores decrescentes. *Flores* parvi, in verticillis spurii c. 7meris dispositi, superne laxiores. *Sepalum dorsale* oblongum, apiculatum, c. 0.125 cm. longum, 0.06 cm latum. *Sepala lateral*ia oblique oblongo-triangulara, marginibus leviter curvatis, obtusiuscula, c. 0.13 cm longa, 0.075 cm lata. *Petala* oblique subelliptica vel plus minusve ovata, acuta, basi late subcuneata, grossius erosa, c. 0.12 cm longa, 0.07-0.075 cm lata. *Labellum* 3lobum, excavatione concava conspicua rotundata ad basin, 3nervium, explanatum c. 0.12 cm, usque ad apicem loborum lateralium 0.05 cm longum, ad lobos laterales fere 0.15 cm latum; lobi laterales patentissimi, oblique subcuneato-quadranguli vel plus minusve orbiculari-quadranguli ad quinquangulati, postice non antice brevissime obtuse producti, irregulariter marginati ad paucicrenati; lobus intermedius major, e basi brevissime late subunguiculata obverse aequilateraliter trapeziformis, apice truncato obsolete trilobulatus, irregulariter marginatus, c. 0.07 cm longus, basi 0.07-0.075 cm, apice 0.1 cm latus. *Gynostemium* brevissimum, clinandrio concavo, auriculis latis, obtusis. *Capsula* patentissima, sexangulata, sexcostata, obovoidea, apice obtusa reliquiis floris coronata, basi acuta, glabra, c. 0.27-0.3 cm longa, plus minusve distincte in valvas 3 ellipticas 3 lineares basi apiceque cohaerentes dehiscens; pedicellus tenuis, c. 0.15-0.2 cm longus.

*Selebes*: Goënoeng Bantaeng, forest (H.A.B. BÜNNEMEIJER n.12133, 13 June 1921, 1600 m; n.12278, 18 June 1921, 1800 m; n.12398, 21 June 1921, 1850 m).

All the specimens were in fruit so that the description wants revision in some respects after better materials, especially as to the column.

The species is nearly related to *O. pallideflava* SCHLTR. but it has lobed petals and the lip less distinctly lobed at the tip. From *O. dubia* J.J.S. it is to be distinguished by the shorter lip, and from *O. similis* LNDL. by the different petals and lip and the longer pedicellate fruits.

Description from herbarium and materials preserved in alcohol.

**Oberonia** (sect. *Apotemnophyllum*) **iridifolia** LNDL. Gen. et sp. Orch. (1830), 15; etc.

*Selebes*: Malino, 280 m (H.A.B. BÜNNEMEIJER n.10709, 30 March 1921, roadside; n.10884, 8 April 1921, secondary forest: „flowers orangegreen”).

LIPARIS L. C. RICH.

**Liparis viridiflora** LNDL. Gen. et sp. Orch. (1830), 31; J.J.S. in Bull. Jard. Bot. Buit. 3e sér. IX (1928) 483.

Selebes: Lombasang, forest (H. A. B. BÜNNEMEIJER n. 11229, 29 April 1921, 920 m; n. 11306, 3 May 1921, 950 m; n. 11672, 23 May 1921, 950 m; n. 11721, 26 May 1921, 1000 m).

**Liparis condylobulbon** RCHB. F. in Hamb. Gartenz. 1862, 34; J. J. S. in Bull. Bot. Jard. Buit. 3e sér. IX (1828), 484; etc.

var. **papuana** J. J. S. in Bult. Jard. Bot. Buit. 3e sér. IX. (1928) 485.—*L. confusa* J. J. S. var. *papuana* J. J. S. in Nova Guinea XII (1915), 226; etc.

Selebes: Lombasang, 700 m, epiphytical in forest (H. A. B. BÜNNEMEIJER n. 11412, 7 May 1921; „flowers light green, lip brownish red”).

I cannot separate this from the Papuan variety.

### SARCOSTOMA BL.

**Sarcostoma subulatum** SCHLTR. in FEDDE Rep. XXI (1925), 170.

*Rhizoma* patens, breve, valde ramosum, teres, c. 4 cm longum, 0.125–0.13 cm diam., vaginis adpressis amplectentibus imbricatis membranaceis sicco brunneis pallide prominule nervosis ad c. 1.3 cm longis tectum, basi valde radicans, radicibus in parte superiore rhizomati adpressis. *Caules* (pseudobulbi) satis approximati, cum rhizomate angulum acutum facientes, tenues, teretes, basi paululo attenuati, c. 0.7–1.3 cm longi, 0.14 cm diam., vagina superiore omnino obtecti, 1folii. *Folium* erectum, curvulum vel valde recurvum, teres vel paululum depressum, supra in utraque parte canaliculae longitudinalis angustae convexum, apice acutum pungens, basi attenuatum, carnosum, c. 4.4–5.2 cm longum, 0.35–0.3 cm diam.; vagina petioliformis, canaliculata, c. 0.4–0.6 cm. longa. *Inflorescentiae* fasciculatae, c. 4–5 simultanee florentes, pedunculis 1floris, tenuibus, puberulis, c. 0.3 cm longis, basi nonnullis medio 1 vaginulis tubulosis superne inflatis membranaceis donato. *Bractea* vaginulis similis, basi breviter tubulosa, inflato-concava, lata, acuminata, tenuiter membranacea, ovarium superans, menti magnam partem includens, c. 0.4 cm longa. *Flos* c. 0.425 cm longus et latus, sepalis petalisque inferne subparallelis, divergentibus. *Sepalum dorsale* apice recurvulum leviterque convexum, inferne leviter concavum, ovatum, obtusum, breviter conico-apiculatum, glabrum, 3nervium, c. 0.3 cm longum, 0.2 cm latum. *Sepala lateral*ia lacinia oblique quadrangula ad pedem gynostemii decurrentia, mentum breve reversum ovario adpressum a latere visum conicum subtus visum quadrangulum obtusum vix retusum parce puberulum c. 0.15 cm longum formantia, marginibus anticis inferne contigua, oblique suboblunga, apicem versus conspicue angustata, subacuta, apiculo brevi conico acuta, 3nervia, c. 0.33 cm, margine antico 0.44 cm longa, 0.2 cm lata. *Petala* oblique oblongo-ovata, acuta, leviter concava, 1nervia, c. 0.3 cm longa, fere 0.12 cm lata. *Labellum* apici pedis gynostemii insertum, undatum, gynostemium bene superans, concavum, unguiculatum, leviter trilobum, subtus sulco longitudinali superne evanescente instructum, 3nervium, costulis 2 longitudinalibus

parallelis apice breviter furcatis puberulisque a basi usque infra medium labelli, costula tertia minima interposita, inexplanatum c. 0.36 cm, explanatum 0.375 cm longum, ad lobos laterales 0.17 cm latum, ungue cuneato-oblongo, 0.13 cm longo; lobi laterales incurvi, breves rotundati, a lobo intermedio sinibus levibus rotundato-obtusangulis sejuncti; lobe intermedius multo major, porrectus, carnosus, leviter concavus, medio leviter convexus parceque verruculosus (an semper?), subtus convexus, ovato-triangulus, apicem versus angustatus, explanatus quinquangularis, acutus, c. 0.14 cm longus et latus. *Gynostemium* brevissimum, transverse ovale, dorso convexus, c. 0.1 cm longum, 0.15 cm latum, clinandrio excavato, transverse oblongo, exciso, acute bidentato, pariete tenui, auriculis brevibus, antheram non superantibus, falcato-triangulis, valde concavis, dorso sulcis a clinandrio separatis. *Anthera* cucullata, antice visa transverse ovalis, basi bilobulata, lobulo retuso utrinque; c. 0.1 cm lata. *Pollinia* 4, oblique clavato-pyriformia, basi tenuissima, c. 0.06 cm longa. *Pes gynostemii* reversus, ovario adpressus, rectus, lineari-oblongus, apicem versus angustatus, intus sulcis 2 longitudinalibus leviter 3costulatus, c. 0.1 cm longus. *Ovarium* crassiusculum, 6sulcatum, adpresse pubescens, 0.27 cm longum.

Selebes: Goenoeng Bantaeng, 1900 m, epiphytical in forest (H. A. B. BÜNNEMEIJER n. 12139, 14 June 1921; „flowers white”).

I think this plant is *S. subulatum* SCHLTR, although SCHLECHTER's description does not apply to it in all respects. This may be due, however, to the fact that SCHLECHTER had only dry specimens at his disposal.

Description from herbarium and materials preserved in alcohol.

#### CERATOSTYLIS BL.

***Ceratostylis* (sect. *Euceratostylis*) *lombasangensis* J. J. S. n.sp.**

*Rhizoma* abbreviatum, radicans. *Caules* approximati, teretes 1nodes, carnosi, c. 7-14 cm longi, 0.43 cm diam., inferne nonnullis vaginis adpressis tubulosis membranaceis prominule reticulato-venosis tecti. *Folium* erectum, subulatum, anguste obtusum, supra usque ad apicem canaliculatum, carnosum, c. 3.5-4 cm longum, 0.3 cm. diam.; vagina basi tubulosa, apice canaliculata, rumpens, c. 0.4 cm. longa. *Inflorescentiae* fasciculatae, paucae simultanee florescentes pedunculis unifloris, teretibus pubescentibus, c. 0.45 cm longis, vaginulis c. 3 conspicuis tubulosis acutis glabris tectis. *Bractea* triangula, concava, apice subconduplicata, membranacea, c. 0.24 cm longa. *Flos* fere 0.5 cm longus, sepalis dorso adpresse pubescentibus petalisque basi parallelis superne valde recurvis. *Sepalum dorsale* oblongum, obtusum, breviter conico-apiculatum, basi concavum, 3nervium, c. 0.325 cm longum, 0.14 cm latum. *Sepala lateral*ia lacinia late oblonga valde inflato-concava ad pedem gynostemii decurrentia, mentum reversum ovario adpressum scrotiforme subglossum paulum a dorso compressum basi leviter contractum leviter longitudinaliter sulcatum marginibus anticis contiguis clausum adpresse pubescens dorso c. 0.1 cm longum

0.15 cm latum formantia, parte antica valde recurva, oblique oblonga, obtusa, obtuse apiculata, 3nervia, c. 0.3 cm, tota 0.5 cm longa, 0.14 cm, basi 0.23 cm lata. *Petala* porrecta, apice valde recurva, oblique subovato-lanceolata, acuta, subfalcata, inferne leviter concava, 1nervia, c. 0.3 cm longa, fere 0.1 cm lata. *Labellum* porrectum, gynostemium conspicue superans, cum pede gynostemii angulum acutum fere rectum faciens, supra basin marginibus gynostemio adpressum, undatum, concavum, subtus convexum, 3nervium, costis 2 longitudinalibus parallelis tenuibus ciliolatis ultra medium productis, explanatum elliptico-lanceolatum, c. 0.48 cm longum, basi sensim in unguem cuneato-quadrangulum fere 0.1 cm longum contractum, mesochyllo elliptico, ciliolato, bene 0.2 cm longo, 0.15 cm lato, in epichylium ovato-triangulum obtusum carnosoincrassatum supra subtusque convexum supra ad basin excavatum c. 0.175 cm longum contracto. *Gynostemium* rectum, ambitu ovale, bipartitum, c. 0.15 cm longum, brachiis porrectis, subparallelis, oblongis, obtusis, extus convexis, intus concavis. *Anthera* brachia semiaequans, cucullata, transverse ovalis, apice rotundato-truncata, basi breviter producta subaequaliter 4lobulata, c. 0.06 cm lata. *Pes gynostemii* reversus, ovario adpressus brevis, bene c. 0.1 cm longus. *Ovarium* teres, pubescens, c. 0.3 cm longum.

Selebes: Lombasang, 1000 m, edge of forest on a tree (H. A. B. BÜNNEMEIJER n. 11720, 26 May 1921; „flowers violet”).

Amongst the species with subulate leaves and a short mentum this is distinguished by the thick stems. It differs from *C. subulata* BL. by the differently shaped lip and anther.

Description from herbarium and materials preserved in alcohol.

#### POLYSTACHYA LNDL.

**Polystachya flavescens** J. J. S. in Fl. Buit. VI (1905), 284; etc.

Selebes: Lombasang, 920 m, epiphytical in forest (H. A. B. BÜNNEMEIJER n. 11228, 29 April 1921).

#### DENDROBIUM Sw.

**Dendrobium** (sect. Rhopalanthe) **crumenatum** Sw. in Act. Holm. 1800, 246; etc.

Selebes: Lombasang, 950 m, roadside on a tree (H. A. B. BÜNNEMEIJER n. 11217, 28 April 1921). Tanette, 400 m, edge of forest (H. A. B. BÜNNEMEIJER n. 11748a, 27 May 1921).

**Dendrobium** (sect. Aporum) **ramificans** J. J. S. in Rec. trav. bot. Néerl. I (1904), 147; SCHLTR. in FEDDE Rep. XXI (1925), 154.—*D. micranthum* KRZL. p. p. (non LNDL.) in ENGL. Pflanzenr. IV, 50, II B. 21 (1910), 212.

Selebes: Malino, 280 m, epiphytical in secondary forest. (H. A. B. BÜNNEMEIJER n. 10885, 8 April 1921). Tanette, distr. Parigi, 450 m, roadside (H. A. B. BÜNNEMEIJER n. 12563, 29 June 1921).

The species has been collected also on the Soela Islands.

**Dendrobium** (sect. Pedilonum) **lompobatangense** J. J. S. n. sp.

*Caules* valde ramosi, inferne radicales, flexuosi, teretes, ad nodos leviter constricti, carnosi, foliati, c. 34-55 cm longi, internodiis 2.8-1 cm longis, 0.45-0.46 cm diam. *Folia* patentia, lanceolato-linearia, apicem versus angustata, acuta, saepe apiculata, basi vix contracta, minutissime crenulata, superne eroso-crenata, marginibus recurvis convexa, costa media supra canaliculata subtus prominente, papyracea, c. 3-6 cm longa, 0.37-0.75 cm lata; vaginae tubulosae, internodia subaequantes, apice truncatae. *Inflorescentiae* versus apicem caulium foliatorum, breves, erectae, dense pluriflorae, pedunculo c. 0.5-0.6 cm longo, nonnullis vaginulis tubulosis apiculatis superioribus accrescentibus ad c. 0.4 cm longis omnino oblecto, rachide crassiuscula, c. 0.8-0.9 cm longa. *Bractee* subpatentissimae, e basi concava ovata longissime ad longe subulato-acuminatae, apice convexo recurvulae, minutissime serrulatae, 2-3 nerviae, ad c. 0.75-0.825 cm longae, 0.325-0.25 cm latae, superiores decrescentes. *Flores* c. 9-10, quaquaversi, c. 1.1 cm lati, 1.5 cm longi. *Sepalum dorsale* ovario continuum, apice vix recurvulum, subquinguangulatio-ovatum, a medio fere sensim angustatum, acutum, minute apiculatum, 3nervium, c. 0.75 cm longum, 0.33 cm latum. *Sepala lateralalia* lacinia oblique oblongo-triangularia concava ad pedem gynostemii decurrentia, mentum reversum ovario adpressum rectum marginibus anticis longitudine c. 0.525 cm connatis calcariforme conicum obtusum c. 0.66 cm longum formantia, erecto-patentia, divergentia, oblique oblongo-triangularia, leviter acuminata, acuta, apiculata, 4nervia, costa media dorso versus apicem leviter incrassata, c. 0.8 cm, margine antico 1.5 cm longa, basi 0.8 cm metientia, supra basin bene 0.4 cm lata. *Petala* erecta, sepalo intermedio parallela, lanceolata, acuta superne minutissime erosulo-serrulata, 1nervia, nervo 1 minimo utrinque, c. 0.725 cm longa, 0.2-0.225 cm lata. *Labellum* simplex, pedi gynostemii gynostemioque parallelum, gynostemium bene superans, concavum, in c.  $\frac{1}{3}$  supra basin recurvulum, spathulatum, basi c. 0.275 cm pedi gynostemii adnatum, parte inferiore leviter ventricosum, intus in flexu incrassatione transversa Uiformi donatum, 5nervium, explanatum totum c. 1.43 cm longum, in c. 0.5 cm supra basin constrictum et 0.17 cm latum, ungue oblongo, 0.26 cm lato, lamina rhombea acutata, vix acuminata, acuta; superne minutissime serrulato-erosula, 0.9 cm longa, 0.4 cm lata. *Gynostemium* breve, latum, rectum, a dorso compressum, supra visum subquadratum, apicem versus paululum dilatatum, c. 0.23 cm longum, clinandrio alte excavato, transverso, auriculis porrectis, verticalibus, oblique quadrangulis, oblique truncatis crenulatisque, angulo postico productis. *Anthera* cucullata, transverse quadrangula, apice breviter producta truncata et fascia lata puberula, dorso rotundato-biloba, fere 0.2 cm lata. *Pollinia* 4, a dorso compressa, in corpuscula 2 oblique obovata convexa subtus concava unita, c. 0.13 cm longa. *Stigma* in basi gynostemii, transversum, semiorbiculari-ellipticum. *Pes gynostemii* reversus, ovario adpressus, superne vix incurvulus, linearis, parte inferiore subplanus, paulo infra medium leviter convexus, dimidio superiore fere leviter canaliculatus,

medio ferè lamella parva tenui apicem pedis versus spectante triangula obtusa donatus, c. 0.7 cm longus. *Ovarium* rotundato-trigonum, 6sulcatum, apicè valde obliquum, c. 0.75 cm longum, cum pedicello tenuiore c. 0.65 cm longò clavatum.

**S e l e b e s:** Goenoeng Bantaeng, epiphytical in forest (H. A. B. BÜN-NEMEIJER n.11985, 9 June 1921, 2200 m; n.12028, 10 June 1921, 2060 m; n.12135, 13 June 1921, 1600 m; n.12159, 14 June 1921, 1800 m; n.12400, 21 June 1921, 1850 m; „flowers violet or light violet”).

This species belongs to the affinity of *D. bracteosum* RCHB. F., *D. capituliflorum* ROLFE, *D. constrictum* J. J. S., etc. It appears to be a rather common plant on the spot.

Description from herbarium and materials preserved in alcohol.

### PEDILOCHILUS SCHLTR.

#### **Pedilochilus bantaengense** J. J. S. n. sp.

*Rhizoma* repens, radicans. *Pseudobulbi* c. 0.3-0.4 cm dissiti, cum rhizomate angulum acutum facientes, oblique ovoidei c. 1.6 cm longi, 0.775 cm diam., 1folii. *Folium* lanceolatum, apice recurvum, obtusum, basi longius petiolato-angustatum, costa media supra canaliculata subtus obtuse prominente, margine acuto recurvum, carnosulum, totum c. 5-7 cm longum, parte angustata 0.6-1 cm longa, bene 1.1 cm latum. *Inflorescentiae* e basi pseudobulborum ortae, fasciculatae, 1florae, pedunculis c. 6-9 cm longis, basi nonnullis ceterum 2 vaginulis remotis tubulosis donatis. *Bractea* tubulosa, ‘superne leviter ampliata, oblique truncata, obtusa, superne carinata, c. 0.5 cm longa. *Flos* sepalis petalisque conniventibus bene 1 cm longus. *Sepalum dorsale* inferne utrinque marginibus sepalbrum lateralium obtectum, horizontale, basi concavum, superne in utraque parte canaliculae longitudinalis convexum, apice leviter conduplicatum, ellipticum ad-subovatum; brevissime acute acuminatum, 5nerviū, costa media dorso obtuse prominente, c. 0.9-1.2 cm longum, 0.42-0.7 cm latum. *Sepala latelaria* porrecta, verticalia, divergentia, valde concava, praesertim margine postica incurva, oblique oblonga ad ovata, obtusa, apice breviter obtuse conduplicato-apiculata, 5nervia, c. 0.95-1.3 cm longa, 0.5-0.85 cm lata. *Petala* minora, porrecta, marginibus posticis fere contiguis gynostemium tectiformi-obtegentia, oblique concava, margine postico apiceque recurva, margine antico basi subrecurvula, 1nervia, costa serpentina dorso carinata, explanata e basi brevissime angustissime quadrangulo-unguiculata in laminam oblongo-quadrangulam truncatam minutissime apiculatam dilatata, c. 0.525-0.55 cm longa, 0.34-0.4 cm lata. *Labellum* porrectum, cum pede gynostemii angulum obtusum faciens, immobile, 3lobum, brevissime unguiculatum, c. 0.825 cm longum; lobi laterales parvi, supra basin erecti, falcato-recurvi et margine antico margines gynostemii contingentes, trianguli, obtusi, extus marginibus lobi intermedii decurrentibus carinati, margine antico fere 0.2 cm longi, callo conspicuo transverso qua-



drangulo supra crasse longitudinaliter costato inter lobos laterales; lobus intermedius multo major, porrectus, ambitu obovatus, praesertim superne valde saccato-concavum, subtus longitudinaliter late canaliculatum, nervis intus prominentibus, marginibus superne incrassatis rugulosisque, apice in lobulum brevem recurvum late triangulum obtusum margine costaque media late convexo-incrassatis rugulosisque carnosum contractum, c. 0.7 cm longum, bene 0.4 cm latum. *Gynostemium* ovario multo tenuius, in utraque stigmatis parte rotundato-dilatatum, totum c. 0.3 cm longum, clinandrio valde obliquo, concavo, auriculis elongatis, antheram longe superantibus, filiformibus, subfalcatulis. *Anthera* cucullata, orbicularis, apice in appendicem angustiore recurvum quinquangularem obtusam convexam papillosam producta, connectivo convexo-incrassato, bene 0.1 cm longa. *Pollinia* 4, inaequalia, lateraliter compressa, oblonga, exteriora extus convexa, intus plana, c. 0.07 cm longa, interiora minora, 0.05 cm longa. *Rostellum* triangulum. *Stigma* longitudinale, anguste fissuriforme. *Pes gynostemii* brevissimus, cum ovario angulum obtusum faciens, incurvulus, crassus, apice a sepalis lateralibus liber, c. 0.1 cm longus. *Ovarium* elongato-obconicum, 6sulcatum, c. 0.4 cm longum; pedicellus c. 0.6 cm longus, c. 0.2 cm supra basin articulatus. *Capsula* immatura fusiformis, 6costata, apice longe contracta, basi acuminata, c. 1.8 cm longa, apice contracto, 0.4 cm longo; pedicellus 1.5-1.7 cm longus.

Selebes: Goenoeng Bantaeng, coppice (H.A.B. BÜNNEMEIJER n.11905, 8 June 1921, 2400 m; n.12140, 14 June 1921, 1900 m; n.12190, 15 June 1921, 2800 m; n.12212, 16 June 1921, 2850 m; „flowers yellowish green or light green, dotted violet”).

A very remarkable plant on account of it being the first extra-Papuan representative of the genus. It was interesting to find that it possesses 4 pollinia, although SCHLECHTER ascribed only 2 to the genus. So the differences with *Bulbophyllum* grow very small and I believe firmly that it will prove impossible to uphold it as a genus. In the shape of the lip it shows affinities with the section *Coelochilus* of *Bulbophyllum* (with which in my opinion SCHLECHTER's genus *Saccoglossum* and the section *Scaphochilus* and perhaps also *Trachychilus* of *Bulbophyllum* better should be united) and with *Polyblepharon*. For the present I do not undertake the combination as the pollinia of none of the Papuan species have been described.

Description from herbarium and a flower preserved in alcohol.

#### SARCOCHILUS R. BR.

***Sarcochilus teres*** RCHB. F. in WALP. Ann. VI (1861), 499; etc.

Selebes: Tanette, district Parigi, 450 m, roadside (H. A. B. BÜNNEMEIJER n. 12560, 29 June 1921).

## AERIDES LOUR.

**Aerides inflexum** T. et B. in Nat. Tijdschr. Ned. Ind. XXIV (1862), 324.

**S e l e b e s :** Goenoeng Galesong near Malino, 310 m, roadside on tree (H. A. B. BÜNNEMEIJER n. 10795, 5 April 1921). Raoelo near Lombasang, 950 m, forest (H. A. B. BÜNNEMEIJER n. 11274, 1 May 1921). Lombasang (H. A. B. BÜNNEMEIJER n. 11143, 24 April 1921, 950 m; n. 11293, 2 May 1921, 900 m; n. 11384, 6 May 1921, 1000 m).

## LUISIA GAUD.

**Luisia javanica** J. J. S. in Bull. Jard. Bot. Buit. 2e sér. XIV (1914), 56; etc.

**S e l e b e s :** Tanette, district Parigi, 450 m, roadside (H. A. B. BÜNNEMEIJER n. 12561, 29 June 1921).

I cannot distinguish this plant from *L. javanica* J. J. S., and also *L. celebica* SCHLTR. seems to belong here. Both species should perhaps better be united with *L. confusa* RCHB. F.

## SACCOLABIOPSIS J. J. S.

**Saccolabiopsis celebica** J. J. S. n. sp.

**Pusilla.** *Caulis* brevis, c. 0.7 cm longus, radicibus crassiusculis teretibus. *Folia* c. 3, patentissima, lanceolato-ad oblongo-elliptica obtusa, oblique bidentata (?), basi angustata conduplicata, supra obtusangulo canaliculata cum lateralibus convexis, subtus carnosio-carinata, carnosae, c. 1.5-1.65 cm longa, 0.6-0.5 cm lata; vaginae breves, tubulosae, longitudinaliter costulatae. *Inflorescentiae* vaginam dorso ad basin perforantes, pauciflorae, quaquaversae, pedunculo apicem versus incrassato, c. 0.65 cm longo, vaginulis 2 parvis tubulosis donato, rachide valde interrupte angulato-costata, c. 0.6 cm longa. *Bractae* triangulae, acutae, concavae, c. 0.1 cm longae, bene 0.05 latae. *Flores* c. 6, parvi, c. 0.3 cm longi, 0.175 cm lati, sepalis petalisque incurvis. *Sepalum dorsale* oblongum, apicem versus leviter dilatatum, obtusum, leviter concavum, 1nervium, c. 0.2 cm longum, 0.075 cm latum. *Sepala lateralialia* oblique oblonga, obtusa, leviter concava, 1nervia, costa dorso obtuse incrassata, c. 0.18 cm longa, 0.08 cm lata. *Petala* oblique oblonga, apicem versus dilatata, obtusa, leviter concava, nervo 1 dorso obtuse prominente, c. 0.175 cm longa, 0.075 cm lata. *Labellum* 3lobum, calcaratum, ab apice lobi intermedii usque ad apicem ovarii c. 0.2 cm, a lobis lateralibus ad apicem calcaris 0.225 cm, a basi usque ad apicem calcaris 0.2 cm metiens, 0.15 cm latum, satis tenue, intus infra basin lobi intermedii in utraque parte canaliculae longitudinalis convexo-incrassatum; lobi laterales remoti, ad faucem calcaris erecti, gynostemium fere aequantes, lati, angulato-rotundati, leviter concavi, cum lobo intermedii angulum obtusum facientes; lobus intermedius recurvus, late subovato-triangelus, obtusus; calcar ovario parallelum, deorsum spec-

tans, a dorso compressum, antice visum rotundato-triangulum, a latere visum oblongum, obtusum. *Gynostemium* crassiusculum, oblongum, dorso convexum, c. 0.13 cm longum, apice producto obtusissimo, clinandrio concavo. *Anthera* cucullata, transverse rotundato-quadrangula, apice in rostrum satis conspicuum quadrangulum apicem versus angustatum truncato-obtusum convexum producta, tenuis, 0.07 cm lata. *Pollinia* 4, valde inaequalia, 2 majora oblique obovata, rotundata, basi acuta, c. 0.03 cm longa, 2 multo minora et tenuiora, subelliptica, stipite spathulato, obtuso, leviter convexo, cum glandula oblonga 0.05 cm longa. *Rostellum* antice breviter acute bidentatum, postice obtusum. *Stigma* conspicuum, alte excavatum, ambitu quadrangulum, basi latius, leviter lobulatum. *Ovarium* leviter tortum, 6sulcatum, basi excepta in sulcis parce furfuraceum, cum pedicello subnullo c. 0.25 cm longum.

Selebes: Lombasang, 950 m, roadside (H. A. B. BÜNNEMEIJER n. 10987, 15 April 1921; „flowers greenish yellow with two violet dots on the lip”).

This is the second representative of the genus, the other, *S. Bakhuizenii* J. J. S. being collected on a few spots of West Java and probably also in South Sumatra.

It differs from *S. Bakhuizenii* in the triangular bracts, the broad spur compressed from the back, broadly rotundate side lobes, a differently shaped anther and stipes.

Description from a single plant preserved in alcohol.

#### TAENIOPHYLLUM BL.

**Taeniophyllum** (sect. *Codonosepalum*) **bicostulatum** J. J. S. n. sp.

*Caulis* abbreviatus, radicibus numerosis, flexuosis, paulo applanatis ad c. 12 longis, 0.13-0.14 cm latis. *Inflorescentiae* numerosae, pluriflorae, pedunculo capillari, c. 3-4.3 cm longo, nonnullis vaginulis minutis tubulosis valde remotis donato, rachide flexuosa, ad c. 0.4 cm longa, cum bracteis 0.13 cm lata, internodiis c. 0.05 cm longis. *Bractae* patentissimae, triangulae, obtuse apiculatae, concavae, dorso carinatae, c. 0.06 cm longae. *Flores* c. 8, alternatim bifarii, singulatim expansi, parvi, c. 0.27 cm lati, 0.4 cm longi, sepalis petalisque basi longitudine fere 0.1 cm in tubum subtus apertum explanatum c. 0.35 cm latum connatis, subparallelis, leviter divergentibus, concavis, dorso carnosulo-carinatis, 1nerviis. *Sepalum dorsale* deficiens. *Sepala lateral*ia tota c. 0.25 cm longa, parte libera oblique oblongo-triangula, superne leviter contracta, obtusa vel obtusiuscula, bene 0.15 cm longa, 0.08 cm lata. *Petala* tota 0.24 cm longa, parte libera oblique ovato-triangula, apicem versus angustata, acutiuscula, c. 0.14 cm longa, 0.1-0.12 cm lata. *Labellum* calcaratum, porrectum, gynostemium multo superans, concavum, marginibus supra basin incurvis, obtusangule dilatatis et ultra medium cucullato-connatis sinum anguste triangulum acutum formantibus, apice conicum, anguste obtusum, supra bene infra apicem subulam reversam cum labello angulum acutum facientem longiusculam instructum, costulis 2 postice

in calcar decurrentibus parallelisque antice in basi laminae recurvis terminantibusque, supra visum oblongo-triangulum, c. 0.28 cm longum, fere 0.1 cm latum, cum calcar c. 0.4 cm metiens; calcar reversum, vix incurvulum, ovario adpressum, a dorso compressum, ovatum, apicem versus angustatum, obtusum, c. 0.16 cm longum. *Gynostemium* brevissimum, dorso convexum, totum c. 0.1 cm longum, clinandrio alte excavato, transverse ovali, brachiis brevibus porrectis, in excavationem labelli quadrantibus, subtrapezoides obtusis, extus valde convexis, intus marginibus oblique incurvis concavis semitubulosis, antheram superantibus. *Anthera* cucullata, transversa, didyma, thecis orbicularibus canalicula separatis, apice in rostrum breve angustum producta, fere 0.04 cm lata. *Pollinia* 4, inaequalia, oblique pyriformia, stipite lineari, superne spatulato-dilatato, glandula majuscula. *Rostellum* brachiis brevius bipartitum, laciniis e basi late subulato-acuminatis. *Ovarium* curvatum, 6sulcatum, c. 0.125 cm longum; pedicellus 0.1 cm longus.

*Selebes*: Lombasang, 950 m, epiphytical in forest (H. A. B. BÜNNEMEIJER n. 11461, 10 May 1921; „flowers yellow”).

Near *T. usneoides* SCHLTR. but with much shorter and denser inflorescences, smaller flowers with the sepals and petals less highly connate, and a different lip.

Description from two specimens, one dry, the other preserved in alcohol.

#### GASTROCHILUS DON.

***Gastrochilus sororius*** SCHLTR. in FEDDE Rep. XII (1913), 315; etc.

*Selebes*: Tanette, district Parigi, 450 m, roadside (H. A. B. BÜNNEMEIJER n. 12562, 29 June 1921).

The only dried specimen at hand closely resembles the Javanese species, but more materials are very desirable.

#### POMATOCALPA BREDÁ.

***Pomatocalpa latifolium*** J. J. S. in Nat. Tijdschr. Ned. Ind. LXXII (1912), 35; etc.

*Selebes*: Malino, 280 m, secondary forest (H. A. B. BÜNNEMEIJER n. 10882, May 1921).

I have little doubt as to the correctness of the determination.

#### ROBIQUETIA GAUD.

***Robiquetia bicruris*** J. J. S. n. sp.

*Caulis* simplex vel parum ramosus, basi radicans, flexuosus, ad c. 16-25 longus, internodiis c. 0.7-1.2 cm longis. *Folia* patentia ad subpatentissima, basi semitoria, lorato-lanceolata, interdum subfalcata, apice valde oblique interdum subaequaliter late rotundato-biloba, lobis minute irregulariter crenulatis, costa media sicco dorso prominente, sicco papyracea, c. 4.5-7.5 cm

longa, 1-1.4 cm lata; vaginae tubulosae, valde compressae, ensiformes, apice truncatae, antice altius excisae, internodia paulum superantes, sicco c. 0.35-0.55 cm latae. *Inflorescentiae* vaginam dorso ad basin perforantes, erecto-patentes, apicem caulis versus spectantes, simplices vel ramulum singulum emittentes, folia superantes, densius multiflorae, quaquaversae, cum floribus c. 1.35 cm diam., pedunculo tenui, c. 2-5 cm longo, vaginulis 2 tubulosis donato, rachide costulata, c. 2-10 cm longa. *Bracteae* persistentes, pedicello adpressae, triangulae, acutae, concavae, ad. c. 0.175 cm longae. *Flores* parvi, patentissimi, c. 0.37 cm lati, 0.5 cm longi. *Sepalum dorsale* ovario fere continuum, incurvulum, spathulato-rhombicum, obtusum, concavum, 1nervium, c. 0.25 cm longum, 0.13 cm latum. *Sepala lateralia* oblique porrecta, apice decurva, margine antico inferne labello adpressa, oblique spathulata, subsigmoidea, apice convexa obtusa vel subacutata, dorso ad basin convexo-incrassata, 1nervia, c. 0.26 cm longa, basi fere 0.05 cm, superne fere 0.1 cm lata. *Labellum* 3lobum, calcaratum, basi gynostemio (pedi gynostemii) brevissime adnatum, intus ad basin incrassatione inconspicua transversa longitudinaliter sulcata a gynostemio distinctum, ab apice ovarii ad apicem lobi intermedius c. 0.18 cm, ab apice lobi intermedius usque ad apicem calcaris fere 0.3 cm metiens; lobi laterales ad faucem calcaris erecti, cum lobo intermedio angulum subrectum rotundatum facientes, rotundati, concavi, tenues, intus ad basin marginis antici calloso-incrassati; lobus intermedius porrectus, triangulus, obtusus, subtus valde convexus, intus convexo-incrassatus cum sulco levi longitudinali, c. 0.075 cm longus; calcar reversum, ovario subparallelum, a dorso compressum, medio antice constrictum, parte inferiore infundibuliformi-ampliatum, parte superiore incurvulum, obtusissimum, nervis 5 longitudinalibus prominulis, dorso fere 0.2 cm longum, fere 0.15 cm latum. *Gynostemium* breve, leviter recurvulum, paulo a dorso compressum, dorso convexum, supra visum quadrangulum, c. 0.13 cm, absque anthera 0.1 cm longum, clinandrio vix concavo cum lamella longitudinali erecta infra apicem, pariete postico apice brevissime producto obtusissimo, dente brevi triangulo obtuso utrinque, auriculis longioribus dentiformibus triangulis. *Anthera* cucullata, tenuis, apice triangulo-producta trilobulata, subacuta, bene 0.1 cm lata. *Pollinia* 2, alte fissae (4?), subglobosae, c. 0.03 cm longa, stipite lineari, convexo, apice in brachia 2 divaricata convexa dilatata, apice medio in dentem conspicuum porrectum acute conduplicatum acutum productum, bene 0.1 cm longo et lato, glandula subovali, antice rotundata, postice minute bilobulata. *Rostellum* parvulum, porrectum, breviter bidentatum. *Stigma* minimum, alte excavatum, triangulum. *Ovarium* pedicellatum 6sulcatum, c. 0.36 cm longum. *Capsula* apice obtusa, flore coronata, basi acuta, c. 0.4 cm longa, cum pedicello 0.3 cm longo, clavata.

Selebes: Lomasaŋg, epiphytocal in forest (H. A. B. BÜNNEMEIJER n.11116, 23 April 1921, 950 m; n.11418, 7 May 1921, 700 m; n.11462, 10 May 1921; n.11673, 23 May 1921, 950 m; n.11694, 25 May 1921, 1000 m; n.11722, 26 May 1921, 1000 m; n.11805, 31 May 1921, 1100 m; „flowers

yellow, spur in bud violet"). Tamboengkasi near Lombasang, 1330 m, roadside (H. A. B. BÜNNEMEIJER 11199, 27 April 1921).

A very distinct small-flowered species apparently common on the spot. I am not quite sure whether there are 4 pollinia or 2 deeply bipartite.

Description from herbarium and materials preserved in alcohol.

**Robiquetia angustifolia** SCHLTR. in FEDDE Rep. XXI (1925), 208.

*Caulis* elongatus, flexuosus, c. 25-30 cm longus, internodiis c. 2-3.5 cm longis, radicibus crassis. *Folia* patentia, loriformia, apice valde inaequaliter rotundato-biloba, dorso carinata, sicco coriacea, c. 18-24 cm longa, 1.8-2.15 cm lata; vaginae tubulosae, internodia subaequantur, sicco dorso anticeque carinatae, apice oblique truncato antice breviter excisae. *Inflorescentiae* vaginas dorso ad basin perforantes, deorsum spectantes, plerumque ramulos 2 (1-3) emittentes, ramulis patentissimis, curvatis, dense multifloris, pedunculo communi c. 6-11 cm longo, vaginulis c. 3-4 ample tubulosis donato, rachide communi flexuosa c. 4-12 cm longa, pedunculis partialibus c. 1.5-3 cm longis; rachidibus 3-12.5 cm longis. *Bractee* e basi dilatata concava longe subulato-acuminatae, furfuraceae, ad c. 0.8-1 cm longae. *Flores* quaquaversi, patentissimi, macerati c. 1.2 cm longi, sepalis petalisque intus extusque sparse furfuraceo-puberulis. *Sepalum dorsale* late oblongum, obtusissimum, valde concavum, 3nervium, intus c. 0.5 cm, dorso 0.6 cm longum, subexplanatum 0.34 cm latum. *Sepala lateral*ia porrecta, labello adpressa, oblique ovalia, apicem versus vix dilatata, obtusa, 3nervia, c. 54 cm longa, fere 0.4 cm lata. *Petala* oblique late oblonga, apicem versus paulo dilatata, obtusa, 1-3nervia, c. 0.45-0.5 cm longa, 0.3 cm lata. *Labellum* 3lobum, calcaratum, basi gynostemio (pedi) brevissime adnatum, extus parce furfuraceum, ab apice lobi intermedius usque ad apicem ovarii c. 0.55 cm longum, ab apice loborum lateralium ad calcar 0.825 cm metiens; lobi laterales ad faucem calcaris erecti, satis conspicui, subquadranguli, rotundati, incrassatione conspicua intus in margine antico fere contigui; lobus intermedius incurvus, subovato-oblongus, obtusus, concavus, carnosus, subtus ad basin valde rotundato-ventricosus; calcar reversum, ovario parallelum,  $\frac{2}{5}$  partibus superioribus abrupte hamato-incurvum, dorso longitudinaliter alte sulcatum, sulco minore utrinque, in flexu constrictum, parte inferiore lateraliter compresso-infundibuliformi, parte incurva obovoidea, pariete antico conspicue incrassato in flexu fere clausum, dorso inexplanatum c. 0.65 cm longum. *Gynostemium* brevissimum, crassum, leviter a latere compressum, absque anthera c. 0.26 cm longum, usque ad apicem rostellis 0.35 cm metiens, apice obtusissimo, clinandrio concavo cum costa longitudinali infra apicem dente instructa, auriculis parvis, acute dentiformibus. *Anthera* cucullata, subovata, dimidio superiore fere in rostrum rectum subulatum acutum acuminata, c. 0.27 cm longa. *Pollinarium* 0.35 cm longum, polliniis 2 lateraliter compressis, suborbicularibus, alte bipartitis, stipite elongato, curvulo, lanceolato, convexo cum canalicula longitudinali, apice tridentato, dentibus triangulis acutis

exterioribus reversis; intermedio paulo longiore recurvo. pollinia gerente; glandula conspicua, elliptica, antice acuta, postice bidentata. *Rostellum* magnum, porrectum, curvatum, oblongo-quadrangulum, marginibus inferne acutangule recurvis subtus canaliculatum, apice breviter 2dentatum. *Stigma* alte excavatum, transversum. *Ovarium* 6sulcatum, c. 0.3 cm longum, cum pedicello 0.3-0.35 cm longo furfuraceum.

Selebes: Lombasang, 950 m, on trees (H. A. B. BÜNNEMEIJER n. 11051, 19 April 1921; n. 11085, 21 April 1921; n. 11119, 23 April 1921; „flowers yellow, transversely streaked purple, lip yellow”). Tamboeng Kasī near Lombasang, 1330 m, forest on tree (H. A. B. BÜNNEMEIJER n. 11208, 27 April 1921; same colour). Goenoeng Bantaeng, east-south-east slope, 1230 m (H. A. B. BÜNNEMEIJER n. 11239, 30 April 1921).

I suppose that SCHLECHTER's type was not a very strong specimen, perhaps owing to the fact that it was cultivated in the low land whereas it is a mountain species.

Description from herbarium and materials preserved in alcohol.

Utrecht, February 1928.

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<i>Goodyera</i> R. BR.	7	<i>Pedilochilus</i> SCHLTR.	16
<i>bifida</i> BL.	7	<i>*bantaengensis</i> J.J. S.	1, 16
<i>Habenaria</i> WLLD.	4	<i>Peristylus</i> BL.	4
<i>Medusa</i> KRZL.	1, 4	<i>candidus</i> J.J. S.	4
<i>Rumphii</i> LNDL.	4	<i>Phajus</i> LOUR.	9
<i>Herminium</i> L.	4	<i>Tankervilliae</i> BL.	9
<i>angustifolium</i> BTH.	4	<i>Polystachya</i> LNDL.	14
<i>Hetaeria</i> BL.	5	<i>flavescens</i> J.J. S.	1, 14
<i>abbreviata</i> LNDL.	5	<i>Pomatocalpa</i> BRED.	20
<i>*bantaengensis</i> J.J. S.	5	<i>latifolium</i> J.J. S.	20
<i>Liparis</i> L. C. RICH.	11	<i>Robiquetia</i> GAUD.	20
<i>condylobulbon</i> RCHB. F.		<i>angustifolia</i> SCHLTR.	22
var. <i>papuana</i> J.J. S.	12	<i>*bicuris</i> J.J. S.	20
<i>confusa</i> J.J. S.		<i>Saccolabiopsis</i> J.J. S.	18
var. <i>papuana</i> J.J. S.	12	<i>Bakhuizenii</i> J.J. S.	1, 19
<i>viridiflora</i> LNDL.	2, 11	<i>*selebica</i> J.J. S.	1, 18
<i>Luisia</i> GAUD.	18	<i>Sarcanthus</i> LNDL.	
<i>celebica</i> SCHLTR.	18	<i>subulatus</i> RCHB. F.	3
<i>confusa</i> RCHB. F.	18	<i>Sarcochilus</i> R. BR.	17
<i>javanica</i> J.J. S.	1, 18	<i>teres</i> RCHB. F.	17
<i>Microstylis</i> NUTT.	7	<i>Sarcostoma</i> BL.	12
<i>*lombasangensis</i> J.J. S.	9	<i>subulatum</i> SCHLTR.	12
<i>Pierrei</i> FINET.	10	<i>Spathoglottis</i> BL.	9
<i>Wallichii</i> LNDL.	10	<i>plicata</i> BL.	9
<i>Microtis</i> R. BR.	4	<i>Taeniophyllum</i> BL.	19
<i>javanica</i> RCHB. F.	1, 4	<i>*bicostulatum</i> J.J. S.	19
<i>Oberonia</i> LNDL.	10	<i>usneoides</i> SCHLTR.	20
<i>*bantaengensis</i> J.J. S.	10	<i>Tubilabium</i> J.J. S.	6
<i>dubia</i> J.J. S.	11	<i>aureum</i> J.J. S.	7
<i>iridifolia</i> LNDL.	11	<i>*bilobuliferum</i> J.J. S.	1, 6
<i>pallideflava</i> SCHLTR.	11	<i>Vandopsis</i> PFITZ.	
<i>similis</i> LNDL.	11	<i>lissochiloides</i> PFITZ.	3